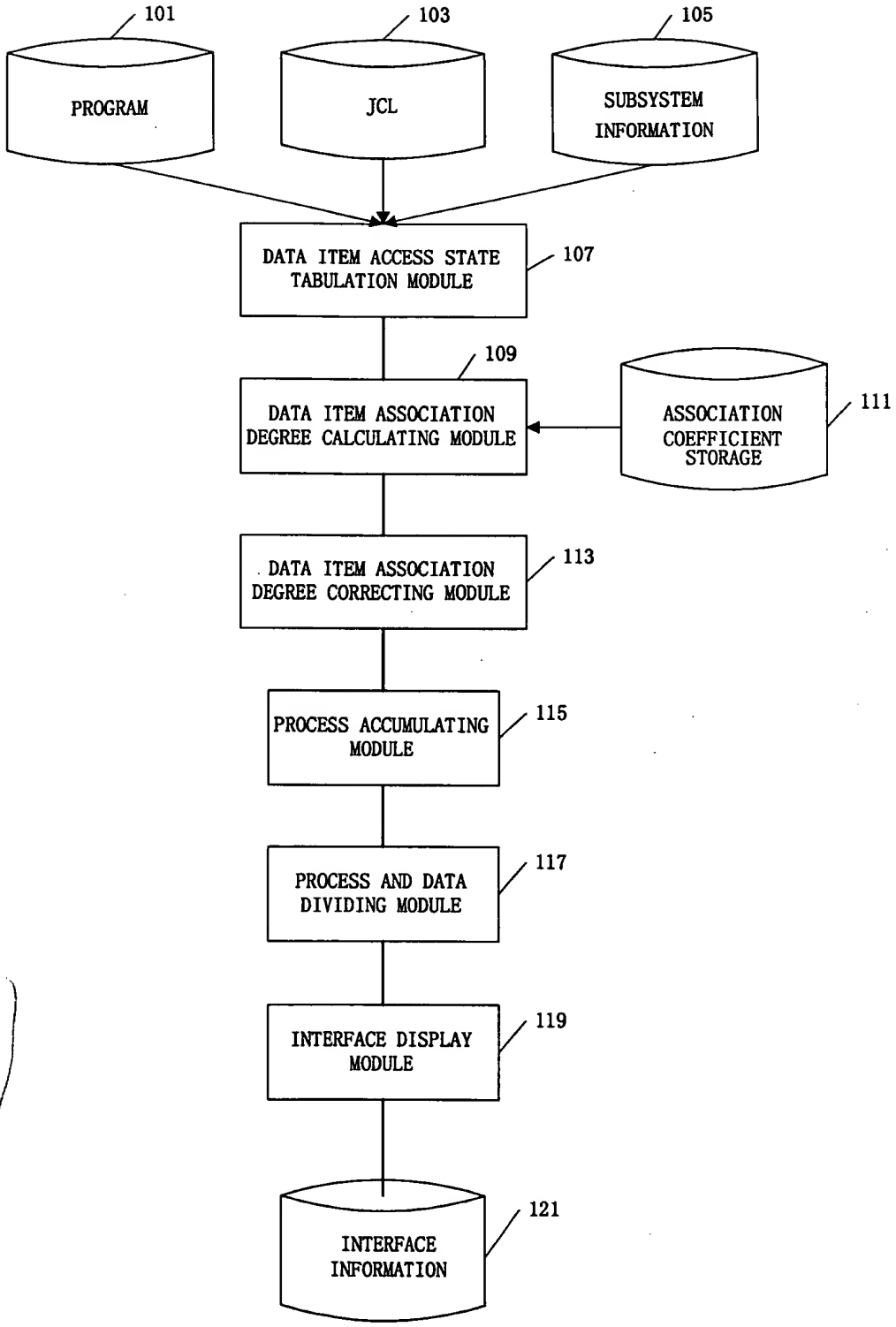
101
PROGRAM
103
JCL
105
SUBSYSTEM INFORMATION
DATA ITEM ACCESS STATE TABULATION MODULE
107
109
DATA ITEM ASSOCIATION DEGREE CALCULATING MODULE
ASSOCIATION COEFFICIENT STORAGE
111
DATA ITEM ASSOCIATION DEGREE CORRECTING MODULE
113
PROCESS ACCUMULATING MODULE
115
PROCESS AND DATA DIVIDING MODULE
117
INTERFACE DISPLAY MODULE
119
INTERFACE INFORMATION
121

FIG.1

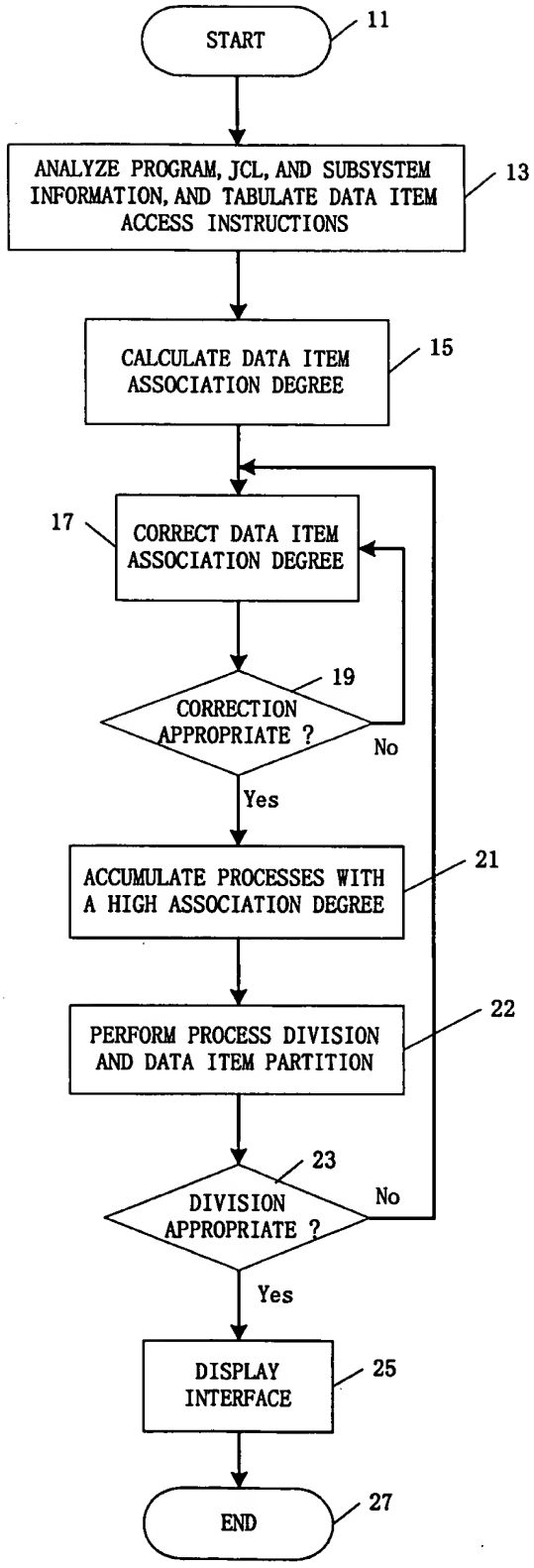
START
11
ANALYZE PROGRAM, JCL, AND SUBSYSTEM INFORMATION, AND TABULATE DATA ITEM ACCESS INSTRUCTIONS
13
CALCULATE DATA ITEM ASSOCIATION DEGREE
15
17
CORRECT DATA ITEM ASSOCIATION DEGREE
19
CORRECTION APPROPRIATE ?
No
Yes
ACCUMULATE PROCESSES WITH A HIGH ASSOCIATION DEGREE
21
PERFORM PROCESS DIVISION AND DATA ITEM PARTITION
22
23
DIVISION APPROPRIATE ?
No
Yes
DISPLAY INTERFACE
25
END
27

FIG.2

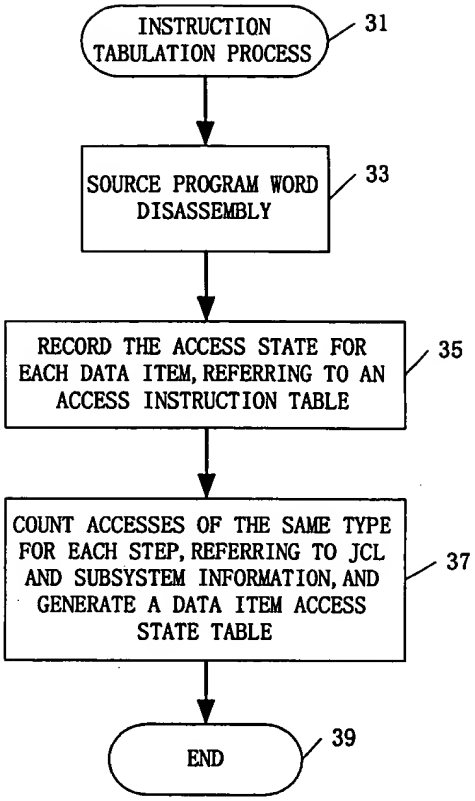

FIG.3

PROGRAM	SECTION	STEP	DATA ITEM	ACCESS TYPE
Pgm11	Sec111	1	D11	READ
Pgm11	Sec111	1	D12	READ
Pgm11	Sec111	4	D11	UPDATE
Pgm11	Sec111	4	D12	UPDATE
Pgm11	Sec111	4	D22	UPDATE
.	.		.	.
.	.		.	.
.	.		.	.

FIG.4

	SYSTEM	SystemA																									
	JOB	Job1													Job2						Job3						
	PROGRAM	Pgm11										Pgm12			Pgm21			Pgm22			Pgm31						
	SECTION	Sec111							Sec112			Sec121			Sec211			Sec221			Sec311						
	STEPs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
FILE	REC	DATA																									
F1	R1	D11	R1			U1				R5						R1			R1			U1						
		D12	R1			U1																U1						
		D13										R1				U2											
		D14															U1					R1					
	R2	D21																				C1					
		D22				U1																C1					
F2	R3	D31								Ra													C1				
		D32								Ra	Ua							Ra					C1				

FIG.5

		ASSOCIATION RELATIONSHIP				
		REFERENCE	UPDATE	CREATE	DELETE	REDEFINE
ASSOCIATION MEDIUM	FILE	1	5	10	10	
	CALL PARAMETER	2	7	12	12	
	COPY PHRASE	3	9			20
	LOCAL VARIABLE	50	60			90

FIG.6

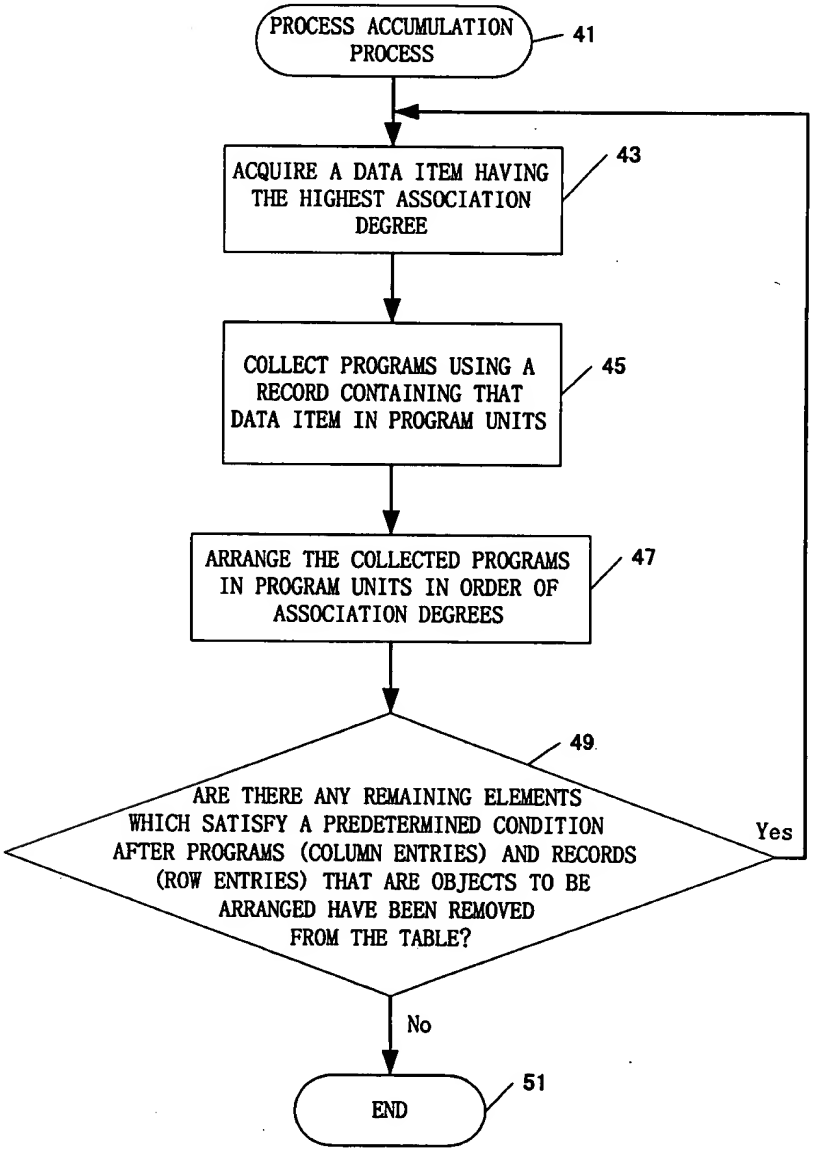

FIG.9

	SYSTEM		SystemA																									
	JOB		Job1													Job2						Job3						
	PROGRAM		Pgm11									Pgm12			Pgm21			Pgm22			Pgm31						
	SECTION		Sec111							Sec112			Sec121			Sec211			Sec221			Sec311						
	STEPs		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
FILE	REC	DATA																										
F1	R1	D11	1			5				5						1			1			5						
		D12	1			5																5						
		D13											1				10											
		D14																5				1						
	R2	D21																					10					
		D22				5																	10					
F2	R3	D31								10														10				
		D32								10	50								10					10				

FIG.7

	SYSTEM		SystemA																									
	JOB		Job1													Job2						Job3						
	PROGRAM		Pgm11									Pgm12				Pgm21			Pgm22			Pgm31						
	SECTION		Sec111							Sec112			Sec121			Sec211			Sec221			Sec311						
	STEPs		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
FILE	REC	DATA																										
F1	R1	D11	1			5				5						1			1			5						
		D12	1			5																5						
		D13											1				10											
		D14																5				1						
	R2	D21																					10					
		D22				5																	10					
F2	R3	D31								20														20				
		D32								20	100								20					20				

FIG.8

	SYSTEM	SystemA																									
	JOB	Job1										Job3						Job2			Job1			Job2		
	PROGRAM	Pgm11										Pgm31						Pgm22			Pgm12			Pgm21		
	SECTION	Sec111							Sec112			Sec311						Sec221			Sec121			Sec211		
	STEPs	1	2	3	4	5	6	7	8	9	10	20	21	22	23	24	25	17	18	19	11	12	13	14	15	16
FILE	REC	DATA																								
F1	R1	D11	1			5				5			5						1						1		
		D12	1			5							5														
		D13																				1				10	
		D14											1														5
	R2	D21												10													
		D22				5								10													
F2	R3	D31								20					20												
		D32								20	100				20				20								

FIG.10

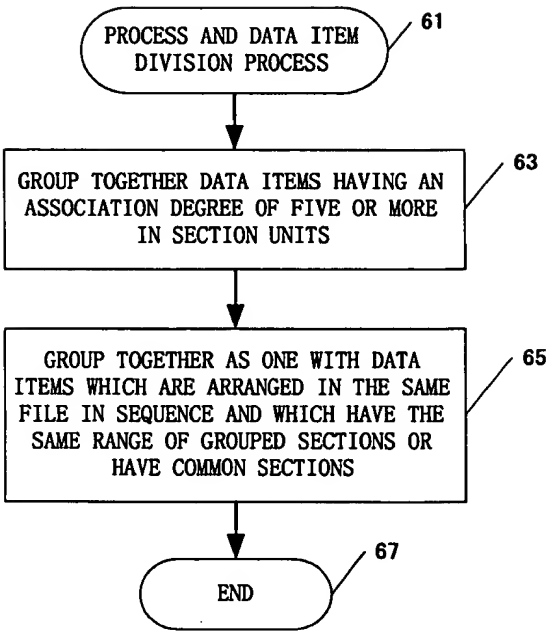

FIG.11

FILE NAME	DATA ITEM NAME	SECTION NAME
F1	D11	Sec111,Sec112,Sec311
F1	D12	Sec111,Sec311
F1	D13	Sec211
F1	D14	Sec211
F1	D21	Sec311
F1	D22	Sec111,Sec311
F2	D31	Sec112,Sec311
F2	D32	Sec112,Sec311,Sec221

FIG.12

FILE NAME	DATA ITEM NAME	SECTION NAME	
F1	D11	Sec111,Sec112,Sec311	
F1	D12	Sec111,Sec311	a
F1	D13	Sec211	
F1	D14	Sec211	d
F1	D21	Sec311	
F1	D22	Sec111,Sec311	b
F2	D31	Sec112,Sec311	
F2	D32	Sec112,Sec311,Sec221	c

FIG.13

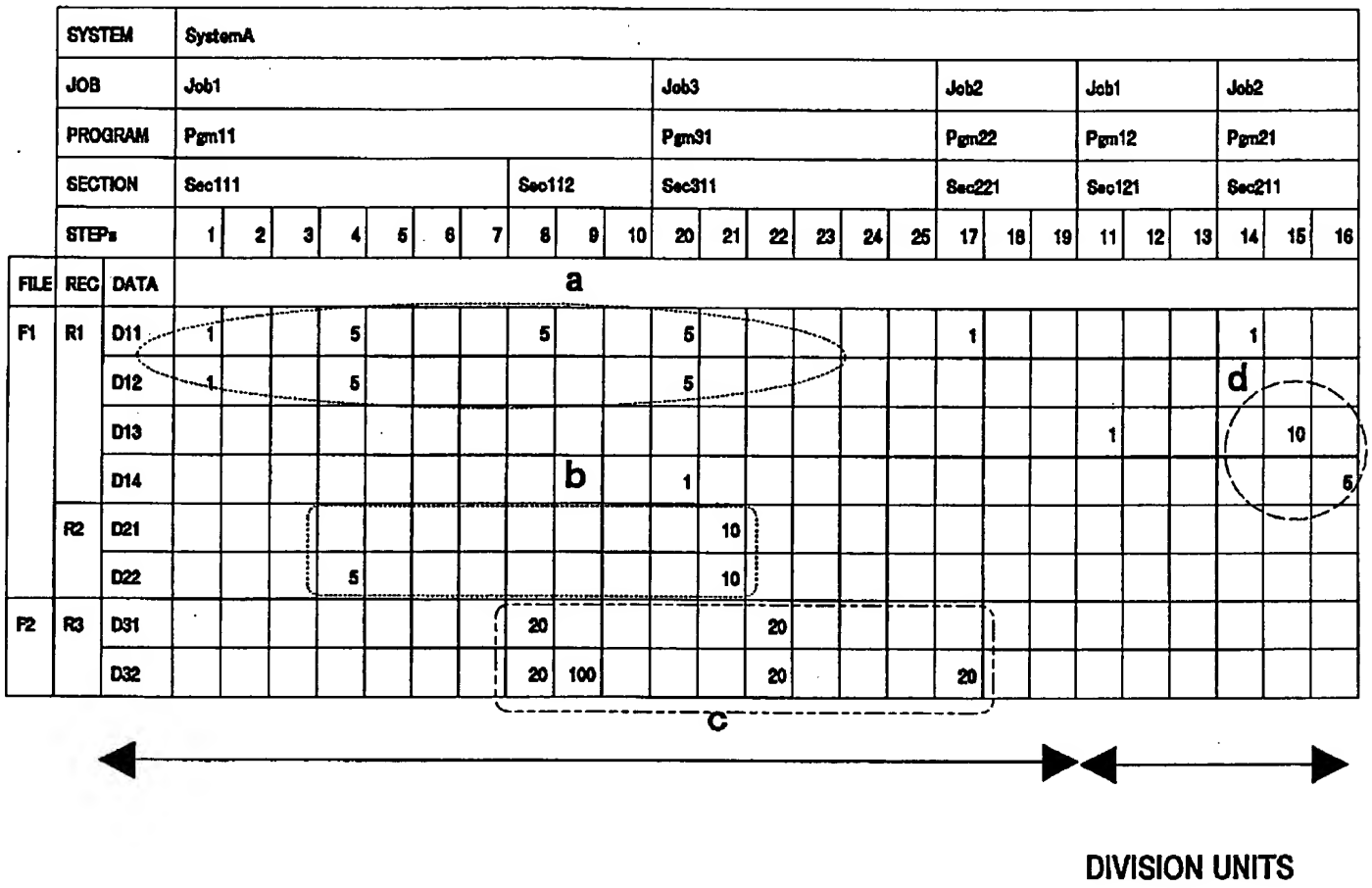
SYSTEM
SystemA
JOB
Job1
Job3
Job2
Job1
Job2
PROGRAM
Pgm11
Pgm31
Pgm22
Pgm12
Pgm21
SECTION
Sec111
Sec112
Sec311
Sec221
Sec121
Sec211
STEPs
1 2 3 4 5 6 7 8 9 10 20 21 22 23 24 25 17 18 19 11 12 13 14 15 16
FILE
REC
DATA
a
F1
R1
D11
D12
D13
D14
R2
D21
D22
F2
R3
D31
D32
b
c
d
DIVISION UNITS

FIG.14

	OBJECT			
	obj-1(pgm11,pgm31,pgm22)		obj-2(pgm12,pgm21)	
	PRIVATE DATA	PUBLIC DATA	PUBLIC DATA	PRIVATE DATA
D11	(REFERENCE,UPDATE)		(REFERENCE)	
D12	(REFERENCE,UPDATE)			
D13				(REFERENCE,UPDATE)
D14		(REFERENCE)		(UPDATE)
D21	(CREATE)			
D22	(CREATE,UPDATE)			
D31	(CREATE,REFERENCE)			
D32	(CREATE,REFERENCE,UPDATE)			

FIG.15